

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2001-007303

(43)Date of publication of application : 12.01.2001

(51)Int.Cl.

H01L 27/108

H01L 21/8242

H01L 27/10

(21)Application number : 11-173018

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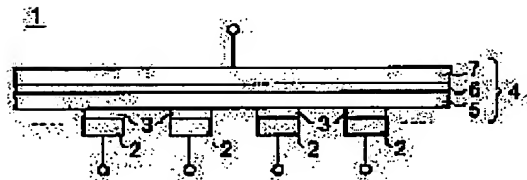
(22)Date of filing : 18.06.1999

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(54) SEMICONDUCTOR DEVICE AND ITS MANUFACTURE

(57)Abstract:

PROBLEM TO BE SOLVED: To restrain degradation of a dielectric which constitutes capacitor films even when annealing is executed in an atmosphere containing a reducing agent, by a method wherein a common electrode which is common to a plurality of dispersed electrodes is provided, and the capacitor films which are formed between the plurality of dispersed electrodes and the common electrode are provided.



SOLUTION: Dispersed electrodes 2 which are dispersed into a plurality of parts and a common electrode 4 which is common to the dispersed electrodes 2 in a plurality and which faces the dispersed electrodes 2 via capacitor films (dielectric films) 3 are provided at a capacitor structure 1. The common electrode 4 contains a laminated structure which is composed of at least three layers as a lower-part conductor layer 5, a barrier layer 6 and an upper-part conductor layer 7. The lower-part conductor layer 5 faces the respective dispersed electrodes 2 via the capacitor films 3. The upper-part conductor layer 7 faces the

lower-part conductor layer 5 via the barrier layer 6. Then, when a reducing material or a material having a property of hardly permeating hydrogen is used for the barrier layer 6 out of the laminated structure composed of the three layers, it is possible to control degradation of the film quality of the capacitor films 3 even when a hydrogen annealing operation is executed.

LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

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